

**To:** Garland, Edward[Edward.Garland@hdrinc.com]  
**Cc:** Naranjo, Eugenia[Naranjo.Eugenia@epa.gov]; Jonathan Clough[jclough@warrenpinnacle.com]; Nate Lewis[NateL@windwardenv.com]; Robert Law[rlaw@demaximis.com]  
**From:** John Toll  
**Sent:** Thur 3/6/2014 10:24:46 PM  
**Subject:** Re: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

Hi Ed. I'm writing to confirm 2:30 PM EST tomorrow. It looks like I don't have your phone number. Let me know and Nate and I will call you, or you can reach us at (206) 812-5433. If we need more lines let me know so we can set it up. John

On Mar 6, 2014, at 12:31 PM, "John Toll" <[JohnT@windwardenv.com](mailto:JohnT@windwardenv.com)> wrote:

Hi Ed. Today's not going to work but tomorrow will. Does 2:30 EST still work? Will we need a conference line? John

**From:** Garland, Edward [<mailto:Edward.Garland@hdrinc.com>]  
**Sent:** Thursday, March 06, 2014 11:46 AM  
**To:** John Toll  
**Cc:** Eugenia Naranjo ([naranjo.eugenia@epa.gov](mailto:naranjo.eugenia@epa.gov)); Jonathan Clough  
**Subject:** RE: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

Great, thanks John. I'll wait to hear from you.

Ed

**From:** John Toll [<mailto:JohnT@windwardenv.com>]  
**Sent:** Thursday, March 06, 2014 11:38 AM  
**To:** Garland, Edward  
**Cc:** Eugenia Naranjo ([naranjo.eugenia@epa.gov](mailto:naranjo.eugenia@epa.gov)); Jonathan Clough  
**Subject:** RE: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

Hi Ed. I'm in the meeting with Rob and Eugenia too. I need one of the guys in Seattle to answer your question. I've e-mailed him to find out when he's available but haven't heard back yet. I will let you know when I hear from him. We might be able to do this when today's meeting ends (3:30 EST). John

**From:** Garland, Edward [<mailto:Edward.Garland@hdrinc.com>]  
**Sent:** Thursday, March 06, 2014 11:35 AM  
**To:** John Toll  
**Cc:** Eugenia Naranjo ([naranjo.eugenia@epa.gov](mailto:naranjo.eugenia@epa.gov)); Jonathan Clough  
**Subject:** FW: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

John,

Eugenia is at a meeting with Rob Law and replied to my previous email, suggesting that we have a call. I'm available any time today or tomorrow after 11:30 your time. Please let me know if you are available.

Thanks,

Ed

**From:** Naranjo, Eugenia [<mailto:Naranjo.Eugenia@epa.gov>]  
**Sent:** Thursday, March 06, 2014 11:28 AM  
**To:** Jonathan Clough; Garland, Edward  
**Subject:** FW: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

I just spoke to Rob Law about this. It seems you are having problems running their model and John Toll misunderstood one of your questions, can you guys just get on the phone with John Toll and the Windward modelers? Thanks.

**From:** Robert Law [<mailto:rlaw@demaximis.com>]  
**Sent:** Thursday, March 06, 2014 11:00 AM  
**To:** LaPoma, Jennifer; Naranjo, Eugenia; Vaughn, Stephanie  
**Subject:** Fwd: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

Begin forwarded message:

**From:** "Garland, Edward" <[Edward.Garland@hdrinc.com](mailto:Edward.Garland@hdrinc.com)>  
**Date:** March 6, 2014 at 10:50:12 EST  
**To:** "James Wands" <[James.Wands@hdrinc.com](mailto:James.Wands@hdrinc.com)>, "John Toll" <[JohnT@windwardenv.com](mailto:JohnT@windwardenv.com)>

**Cc:** "Robert Law" <[rlaw@demaximis.com](mailto:rlaw@demaximis.com)>, "Peter Israelsson" <[pisraelsson@anchorqea.com](mailto:pisraelsson@anchorqea.com)>, "Tarun Singh" <[Tarun.Singh@hdrinc.com](mailto:Tarun.Singh@hdrinc.com)>  
**Subject: RE: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting**

Hello John,

When we tried to run the bioaccumulation model transferred through Hightail on February 7, 2014 we get an error from the VBA code because the "Reference" tab is missing from the Excel workbook. Were you able to run the model in that Excel file? If you were, we would appreciate some more help getting past the error we encountered.

Thanks,

Ed

**From:** John Toll [<mailto:JohnT@windwardenv.com>]  
**Sent:** Friday, February 28, 2014 4:32 PM  
**To:** Wands, James; Garland, Edward  
**Cc:** Singh, Tarun; Peter Israelsson; Robert Law  
**Subject:** RE: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

Hi James. Your questions are about the nuts and bolts of running the IDL code that's used to post-process CFT output. That's Anchor QEA's work so I've forwarded your e-mail to Peter. They're working on it and will get back to you. John

**From:** Wands, James [<mailto:James.Wands@hdrinc.com>]  
**Sent:** Thursday, February 27, 2014 8:59 AM  
**To:** John Toll; Garland, Edward  
**Cc:** Singh, Tarun  
**Subject:** RE: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

John,

Both Ed, and the Tarun (who has been working with the programs) will be out tomorrow afternoon. The question is this, when Tarun goes to run "compile\_foodchain\_inputs.pro" it cannot find the common files "aq\_plotting" and "global01". There are also apparently some user defined functions shp2str and ffill which are missing. Maybe they are in the missing common files? Could you send the missing components so that we can compile/run the script?

If we need to discuss this further, I will be available tomorrow after 2:30 eastern time.

Thanks,

James

**From:** John Toll [<mailto:JohnT@windwardenv.com>]  
**Sent:** Thursday, February 27, 2014 11:22 AM  
**To:** Garland, Edward  
**Cc:** Singh, Tarun; Wands, James  
**Subject:** RE: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

Hi Ed. Sorry it's taken me a couple of days to get back to you. Nate's been out and I'm traveling so we haven't connected. I think that he's available tomorrow early afternoon your time. If so, would that work for you? John

John Toll

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**From:** Garland, Edward [<mailto:Edward.Garland@hdrinc.com>]  
**Sent:** Tuesday, February 25, 2014 8:03 AM  
**To:** Karen Tobiason; John Toll  
**Cc:** Singh, Tarun; Wands, James  
**Subject:** RE: CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

Hello Karen & John,

Thanks for posting the additional information for us to download. We do have some questions for you and would like to take you up on your offer to set up a call with Nate Lewis. We tried to run the IDL script, but got errors with our version of IDL 7.1 We also wondered if the script includes some user-defined functions [e.g. "shp = shp2str(exposure\_shp)"]

We look forward to talking to you,

Ed

**From:** Karen Tobiason [<mailto:delivery@yousendit.com>]  
**Sent:** Friday, February 07, 2014 9:06 PM  
**To:** Garland, Edward  
**Subject:** CPG's bioaccumulation model follow-up -> request for files prior to 2/13 meeting

<image001.jpg>

## Files have been sent to you

from [karent@windwardenv.com](mailto:karent@windwardenv.com) via [Hightail](#).

Eugenia, Per your 2/3/14 e-mail request, we are posting the code and files that you requested:

- The code that extracts the output from the fate and transport model and the extracted output (please see the posted zip file), along with some documentation to explain the various processors, segment

definition, as well as the foodchain input variables (please see IReadMe.docx).

- The version of the CPG's "dynamic bioaccumulation model input template" populated with the exposure concentrations corresponding to the fate and transport model output provided on 12/20/2013
- The version of the "bioaccumulation model template – Dynamic" spreadsheet populated with the output of the dynamic bioaccumulation model, based on the exposure concentrations in the input template spreadsheet.

We will need to walk you through how to connect the dynamic bioaccumulation model that we posted on 12/20/13 with the dynamic bioaccumulation model input template included in this posting. The easiest way to do that is a short phone call with our model developer, Nate Lewis. I will be happy to arrange that, just have whoever is going to be working with the model e-mail or call me (contact info below).

I also have answers to the questions you asked in your 2/3/13 e-mail:

1. The spatial extent of the river considered in these various files are all consistent and are as defined on the Overview tab of the file Passaic\_Model\_Input\_5lay\_WY2013-2057\_140124 - for EPA 2014.02.07.xlsx, which is one of the files that we are posting.
2. The "Bioavailable concentration in water CWB ng/g" input parameter in the steady state model is the truly dissolved water concentration, calculated as follows:  $C_{wd,o} = \text{filtered water concentration} / (1 + 0.08 * \text{DOC} * K_{ow})$  where  $K_{ow}$  is the log octanol-water partitioning coefficient, 0.08 is a proportionality constant describing DOC-water partitioning in relation to octanol-water partitioning (Burkhard 2000, ES&T 34:4663) and DOC is dissolved organic carbon concentration.
3. I don't have the "20131104 TCDD Tissue Projections - Adult Angler" spreadsheet that you referred to, but in general the model's fish tissue 2,3,7,8-TCDD concentration projections are in the low (single- to double-digit) ng/kg range.

Please let me know if you have any questions or need additional information.

John Toll  
[johnnt@windwardenv.com](mailto:johnnt@windwardenv.com)  
206-812-5433

4 files were sent to you.	
<image002.jpg>	processors.zip
<image002.jpg>	cx
<image002.jpg>	Model Input 5lay WY2013-2057 140124 - for
	2.07.xlsx
<image002.jpg>	bioaccumulation model template -
	m

#### **Download Files**

Size: **18.53 MB** Files will be available for download until **February 21, 2014 18:05 PST**.

<image002.jpg>	© 2003-2013 Hightail Inc. 1919 S. Bascom Ave, 3rd Floor, Campbell, CA 95008 <a href="#">Privacy</a>   <a href="#">Terms</a>
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